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A Short Term Surface Water Market for Texas: an Idea Whose Time has Come

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A SHORT TERM SURFACE WATER MARKET FOR TEXAS: AN IDEA WHOSE TIME HAS COME

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ABSTRACT

Four problems indicate that the current non-market systems of water allocation in Texas fail to provide economically efficient outcomes. First, the appropriations system for surface water fails to provide water for junior appropriators in dry years because of over-appropriation, even when the value of the use foregone exceeds the value of use by senior appropriators. Second, even in wet years when there is enough water to serve all users the lack of flexibility for allocating water among users results in loss of economic value. Third, instream uses and freshwater inflows to bays and estuaries are often inadequate for environmental purposes due to withdrawals from the river. Fourth, the inefficiencies in the use of surface water are encouraging premature and high cost transfers of groundwater from remote rural areas to urban users.

A climate of political change currently underway brings a new opportunity to explore market solutions to water allocation problems. A legal battle is now underway to determine whether Texas will allow water rights to be assigned for environmental purposes (instream flows and freshwater inflows for bays and estuaries). Developers and traditional user groups favor modification of the current permit system, available only for withdrawal purposes, by improving the practice of conditioning withdrawal permits for environmental flow purposes. Environmental interests prefer allowing permits for instream purposes.

This paper explores a set of policy changes required to create a competitive market for short term leasing of surface water as a means of moving toward a solution to the environmental flows allocation problem without creating a new class of water rights. The solution to environmental flows, however, can not be defined independent of other allocation problems, including (1) the equally contentious problem of rights to recycled wastewater discharges in the context of "bed and banks" policy ambiguity, (2) legal impediments to interbasin transfers and (3) surface water management influences on groundwater markets.

The recommended approach to the environmental flows problem that will also improve conditions in the recycling, interbasin transfer and groundwater policy areas is to create an annual lease market for surface water. The recommended approach is to (1) deregulate annual leasing of surface water (restricted to consumptive use), (2) assign the task of management of environmental flows to river authorities exercised through sole

ownership of recycling plants and (3) the funding of purchases for environmental flows through a tax on lease sales via the operation of the Texas Water Trust. The argument in the paper is that such a lease market will not solve all of any of these allocation problems but will provide marginal improvements in each allocation area. An active lease market would improve economic efficiency by relieving municipal users of part of the need for new supply capacity, create flexibility among users and location of use without the permanency of a water right sale, provide a mechanism to fund environmental flows in the areas of the state where flows are most needed, and reduce the current demand on remote groundwater transferred for urban use.

The paper explores the details how an annual surface water lease market would work in the Texas legal setting.